Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

are wooded, and slope gently. Dr. Jhering's map (Petermann's Mitteilungen) shows that the Cainacuam has five mouths, while that of the government engineer (1882) shows but three. Many valuable woods occur in the forests. The "campos," or open tracts, which are invariably higher than the forest-covered country, are referred by Dr. Jhering to the diluvial period, while the wooded lands are alluvial.

M. von Fetvelde, in a "Notice" upon the Congo Free State, gives its area at 1,075,000 square miles.

MINERALOGY AND PETROGRAPHY.[1]

PETROGRAPHICAL NEWS.—The volcanic bombs from the Lake Laach district are divided by Hubbard[2] into four classes—old crystalline and schistose bombs, sanidinite bombs, trachyte bombs, and basalt bombs. The last three varieties are difficult to separate from each other, but are easily distinguishable from the first class. After discussing very briefly the various theories proposed to account for these bodies, the author proceeds to investigate those in which *nosean* occurs. He examines two hundred and sixty thin sections of nosean-bearing bombs, and reaches the following conclusions: (1.) The Nosean is in greater part a druse mineral. (2.) The inclussion so characteristic of this mineral consist of magnetite, either fresh or slightly altered. (3.) The little red octahedra so frequently accompanying the titanite of the Lake Laach bombs is closely related to the pyrrhite of San Miguel, and has probably been derived by the alteration of titanite. Several other points of interest in relation to the minerals occurring in these bombs are noted. The most important results reached, however, are those which have been mentioned. —The elæolite-syenite from the vicinity of Rio de Janeiro, Brazil, has recently been carefully examined by Fr. Graeff.[3] The mass of the rock is described as possessing a holocrystalline hypidiomorphic structure. Its principal constituents are hornblende, orthoclase, elæolite, augite, and mica. The feldspar is noticeable for the possession of a parting[4] parallel to $7\ P\bar{\infty}$. In other cases it is intergrown with very fine lamellæ of plagioclase, thus showing striations when examined under the microscope in polarized light. The elæolite is generally fresh, but in some instances is altered into sodalite and analcite. The accessory minerals are titanite, apatite, zircon, fluorite and a black garnet. The rock is interesting, as affording another example of the predominance of hornblende over augite in elæolite-syenites. In it are many little veins of a finer-grained elæolite-syenite, which show very clearly the effects of pressure, and which are remarkable for the number of accessory minerals they contain. A second variety of the rock, found as blocks in the Rio de Ouro, consists of elæolite, orthoclase, ægirine and mica, together with a large number of accessory constituents. Among the latter are *rinkite* and *lavenite.* The former[1] occurs in long narrow plates, marked by cleavage lines parallel to their longer axes. The mineral is slightly pleochroic in yellow tints. The plane of its optical axes is perpendicular to the cleavage. It is readily attacked by concentrated hydrochloric acid, with the separation of gelatinous silica. The lavenite[2] occurs in highly refractive, strongly pleochroic, honey-yellow crystals, and is closely associated with the magnesium-iron constituents. A third variety of the Elæolite-syenite is porphyritically developed. It occurs in the form of a dyke in the holocrystalline rock described above, and contains inclusions of a finer-grained rock of the same general nature.—The massive rocks of the Leadville Region, according to Mr. W. Cross,[3] comprise quartz porphyries, rhyolites, audesites, porphyrites and diorites. The porphyries are the most interesting, in consequence of their relation to the ore bodies. They are divided by Mr. Cross into several varieties, each of which is carefully described. That phase known as the Lincoln porphyry is noteworthy, as containing the rare accessory *allanite.*[4] The sanidines of some of the rhyolites possess a peculiar satiny lustre, due to fine partings parallel to $\frac{15}{2} P_{\bar{\infty}}$. The cavities of these rocks are covered with little crystals of sanidine, quartz, biotite and topaz. In the porphyrites biotite is frequently found in tiny green flakes, with a very strong pleochroism, and rounded grains of quartz are sometimes surrounded by an aureole of quartz and feldspar. It is interesting to note that in certain cases epidote is the final product of alteration of all the minerals of the porphyrites, while in other cases this final product is muscovite.—J. F. Williams[5] has recently described, in a very finely illustrated paper, the trachytes composing Monte Amiata, in Tuscany. These trachytes by alteration yield products which approach very closely to rhyolite on the one hand, and on the other appear very like andesites. The paper is enriched by numerous analyses of feldspar, hypersthene, and types of trachyte.—In a late number of the *Neues Jahrbuch fur Mineralogie*, Reusch[6] illustrates, in a very beautiful manner, the effects of pressure on sedimentary and massive rocks. In the case of conglomerates, he shows how a schistose structure may be induced which is entirely distinct from the bedding due to sedimentation.

---

[1] Edited by Dr. W. S. Bayley, Madison, Wisconsin.

[2] Min. u. Petrog. Mitth., viii., 1887, p. 356.

[3] Neues Jahrb. f. Min., etc., 1887, ii. p. 222.

[4] cf. W. Cross, Monog. xii. U. S. Geol. Survey, p. 348. Mr. Cross finds a parting in the sanidine of the Leadville rhyolites, which is parallel to

---

[1] Cf. American Naturalist, 1884, p. 1141.

[2] Ib., 1887, p. 850.

[3] Monog. U. S. Geol. Survey, xii., Washington. p. 319.

[4] Cf. American Naturalist, 1885, p. 1098.

[5] Neues Jahrb. f. Min., etc., Beil. Bd. v., 1887, p. 381.

[6] Ib., v., 1887, p. 52.

METEORITES.—J. Bosscha[1] describes a meteorite which fell at Karang-Modo, on the island Java, on the 3d of October, 1883. Its thin sections show well-crystallized chondra in addition to enstatite, olivine, troilite, iron and glass. After describing the structure of the meteorite in detail the author proceeds to discuss the various theories which have been proposed to account for the origin of these bodies. He shows the weakness of each, and immediately suggests a new one, in which meteorites are regarded as made up of little particles of cosmic substances, which together with the sun, planets, etc., compose the solar system. He shows how this substance might unite and give rise to a meteorite with the brecciated structure so frequently noticed, and concludes by giving several reasons for the acceptance of his theory.—A meteoric stone which fell at Angro des Reis, in Brazil, during 1867, contains a calcium-rich red augite as one of its constituents. It is consequently richer in calcium than any meteorite heretofore described. It belongs about midway between Rose's eukrites and howardites. Ludwig and Tschermak[2] propose to establish a new class of meteorites, of which this shall be the first member. They call it the augrite class.—A lithosiderite,[3] found last March in a field eight and a half miles west of Rockwood, Cumberland county, Tenn., consists of about 16 per cent. of metallic iron and 84 per cent. of a stony portion made up of anorthite and enstatite. The metallic grains are evenly distributed throughout the mass, and when polished and etched show the usual figures. The stony part presents a brecciated appearance. Through it are scattered the metallic nodules mentioned above, and others consisting of an iron-rich enstatite. It is unfortunate that the careful analyses of the constituent portions of this meteorite are unaccompanied by descriptions of its thin sections.—A meteoric stone having the composition given below is mentioned by Daubrée[4] as having fallen at Djati-Pengilon, in Java, on the 19th of March, 1884. Its specific gravity is 3.747. Weight, 166 kilograms. Composition:—

Fe (Ni=10.78)	Troilite.	Olivine.	Bronzite.	Chromite.
21.3	5.1	33.4	39.0	0.1

It is the fourth meteorite known to have fallen in the neighborhood at various times.—Daubrée and Meunier[5] have examined pieces of meteoric stones, picked up after a meteoric shower which occurred near Grazac and Montpelegry, in Tarn, in August 10th, 1885. They regard them as new types of carbonaceous meteorites. On account of the scarcity of material a complete chemical examination was not attempted. A few tests, however, showed the presence of sulphides, chlorides, olivine, a magnetic ingredient and carbonaceous matter.—Quite a large number of short papers recording the results of the analyses of meteoric irons have recently appeared in the journals. Mr. G. F. Kunz[1] has described the tenth meteoric iron actually seen to fall. Its fall took place on March 27th, 1886, at Cabin Creek, Johnson county, Ark.—The same author reports[2] the analysis by Mr. Whitfield of a meteor from Scottsville, Allen county, Ky.—A mass of meteoric iron[3] ploughed up three years ago in a field in St. Croix county, Wisconsin, shows cubically arranged Widmanstättian figures, very much like those characterizing Meunier's jewellite group.—The Taney county, Missouri, meteorite and the meteoric irons from Chattooga county, Georgia, from Eastern Tennessee, from Waldron Ridge, and from Claiborne county, Tennessee, are briefly described by Mr. G. F. Kunz.[4]—A pallasite found at Campo de Pucará, in the State of Catamarca, of the Argentine Republic, is very similar[5] in aspect and mineralogical composition to the pallasite of Imilac, Atacama.

---

[1] Neues Jahrb. f. Min., etc., Beil. Bd. v., 1887, p. 126.
[2] Min. u. Petrog. Mitth., viii., 1887, p. 341.
[3] Amer. Jour. Sci., Nov., 1887, p. 387. J. E. Whitfield.
[4] Comptes Rendus, civ., 1887, p.
[5] Ib., p. 1771 and 1813.

NEW BOOKS.—The fourth and fifth parts of Professor von Gümbel's "Grundzüge der Geologie"[6] have just been received. They complete the first volume of the author's "Geology of Bavaria." In the two parts before us historical geology is completed. In addition to this there is an interesting chapter on the history of the development of the earth as a portion of the universe and as a member of the solar system. The high character of the illustrations, noticed in former reviews, is maintained, and the number of references is still further increased. The entire volume, exclusive of index, contains 1087 pages, 504 illustrations, and references to 414 topics.—Another very welcome addition to geological literature has appeared in the concluding part of the second volume of Roth's "Chemische Geologie."[7] This brochure embraces in its treatment the crystalline schists and the sedimentary rocks. Like the earlier portions of the same volume, this part is especially valuable for the copious references to articles relating to the spread and character of these important classes of rocks—classes which have hitherto been neglected by writers of handbooks of petrography. The lists of localities in which the different members of these great classes of rocks are found, is very full, except in the case of North America, where it seems that many localities have been overlooked. The book, however, is one which no geologist can well afford to be without.

[1] Amer. Jour. Sci., June, 1887, p. 494.

[2] Amer. Jour. Sci., June, 1887, p. 500.

[3] D. Fisher: ib., Nov., 1887, p. 381.

[4] Ib., Dec., 1887, p. 467.

[5] E. Cohen: Neues Jahrb. f. Min., etc., 1857, ii., p.45.

[6] Geologie von Bayern., Bd. I. Lief iv. v. Grundzüge der Geologie. Dr. K. W. von Gümbel. Kassel, 1887. Cf. American Naturalist, 1886, p. 1047.

[7] J. Roth: Allgemeine und Chemische Geologie, Bd. II. Abt. 3. Berlin, 1887. Cf. American Naturalist, 1885, p. 1215.

MISCELLANEOUS.—Kroustschoff[1] has obtained little crystals of biotite by heating to a high temperature a mixture composed of basalt glass (fused basalt and acid rocks), biotite fragments, amorphous silica, potassium silico-fluoride and sodium and aluminium fluoride.—By fusing tin stone with sodium carbonate and sulphur at a low temperature, for five or six hours, Genth[2] finds that little pyrite crystals are formed.—Alabandine is a regularly crystallizing manganese sulphide. It has been produced artificially by Baubigny,[3] by heating in a sealed tube to 100° the pink precipitate produced when hydrogen sulphide is passed through an acetic acid solution of manganese.—"Precious Stones in the United States" is the title of a very readable article, by G. F. Kunz,[4] in the December number of *Harper's New Monthly Magazine.* It is illustrated by a full-page lithographic plate of the most important gems found within the border of the United States.

BOTANY.[5]

SCHRŒTER'S ARRANGEMENT OF THE USTILAGINEÆ. — In Cohn's Kryptogamen-Flora von Schlesien, Schrœter divides the order Ustilagineæ into three families, as follows, viz.:—

I. *Ustilaginacei,* containing the genera Ustilago Pers., Sphacelotheca De Bary, Schizonella Schrœter, Tolyposporium Woronin.

II. *Tilletiacei,* with the genera Tilletia Tul., Urocystis Rabenh., Entyloma De Bary, Melanotænium De Bary, Tubercinia Fr., Doassansia Cornu.

III. *Thecaphorei,* with the genera Schrœteria Winter, Thecaphora Fingerh., Sorosporium Rudol. The genera Graphiola Poit., Entorrhiza C. Web., Piapalopsis J. Kuhn, and Tuberculina Sacc. are added in an appendix as doubtful Ustilagineæ.

SCHRŒTER'S ARRANGEMENT OF THE UREDINEÆ.—Schrœter divides the fruit-forms of the Uredineæ (in Cohn's Krytogamen-Flora v. Schlesien) into two classes, viz.: (1) Fore-fruits or first-fruits (*Vorfrüchte*)—including (a) Spermogonia, (b) Æcidia, (c) Uredo—and (2) Last-fruits or after-fruits (*Endfrüchte*), including the teleutospores. The order Uredineæ he divides into five groups, as follows, viz.:—

I. *Pucciniei,* including the genera Uromyces Lk., and Puccinia Pers.

---

[1] Min. u. Petrog. Mitth., ix., 1887, p. 55.

[2] Contributions from the Chemical Laboratory of the University of Pennsylvania, 1887, p. 5.

[3] Comptes Rendus, civ., May, 1887, p. 1372.

[4] December, 1887, p. 97.

[5] Edited by Prof Chas. E. Bessey, Lincoln, Neb.